SEQUENCE LISTING

<110> YUAN, Chong-Sheng

<120> DETERMINATION OF IONS USING ION-SENSITIVE ENZYMES

<130> 466992001100

<140> US 10/665,883
<141> 2003-09-19

<160> 18

<170> FastSEQ for Windows Version 4.0

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20 25 30
Ser Thr Thr Ile Thr Lys Asn Asp Asn Ser Pro Val Thr Thr Gly Asp
35 40 45
Tyr Ala Ala Gln Thr Ile Ile Ile Asn Ala Ile Lys Ser Asn Phe Pro
50 55 60
Asp Asp Lys Val Val Gly Glu Glu Ser Ser Ser Gly Leu Ser Asp Ala
65 70 75 80
Phe Val Ser Gly Ile Leu Asn Glu Ile Lys Ala Asn Asp Glu Val Tyr
85 90 95
Asn Lys Asn Tyr Lys Lys Asp Asp Phe Leu Phe Thr Asn Asp Gln Phe
100 105 110
Pro Leu Lys Ser Leu Glu Asp Val Arg Gln Ile Ile Asp Phe Gly Asn
115 120 125
Tyr Glu Gly Gly Arg Lys Gly Arg Phe Trp Cys Leu Asp Pro Ile Asp
130 135 140
Gly Thr Lys Gly Phe Leu Arg Gly Glu Gln Phe Ala Val Cys Leu Ala
145 150 155 160
Leu Ile Val Asp Gly Val Val Gln Leu Gly Cys Ile Gly Cys Pro Asn
165 170 175
Leu Val Leu Ser Ser Tyr Gly Ala Gln Asp Leu Lys Gly His Glu Ser

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            180                 185                 190
Phe Gly Tyr Ile Phe Arg Ala Val Arg Gly Leu Gly Ala Phe Tyr Ser
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Pro Ser Ser Asp Ala Glu Ser Trp Thr Lys Ile His Val Arg His Leu
    210                 215                 220
Lys Asp Thr Lys Asp Met Ile Thr Leu Glu Gly Val Glu Lys Gly His
225                 230                 235                 240
Ser Ser His Asp Glu Gln Thr Ala Ile Lys Asn Lys Leu Asn Ile Ser
                245                 250                 255
Lys Ser Leu His Leu Asp Ser Gln Ala Lys Tyr Cys Leu Leu Ala Leu
            260                 265                 270
Gly Leu Ala Asp Val Tyr Leu Arg Leu Pro Ile Lys Leu Ser Tyr Gln
        275                 280                 285
Glu Lys Ile Trp Asp His Ala Ala Gly Asn Val Ile Val His Glu Ala
    290                 295                 300
Gly Gly Ile His Thr Asp Ala Met Glu Asp Val Pro Leu Asp Phe Gly
305                 310                 315                 320
Asn Gly Arg Thr Leu Ala Thr Lys Gly Val Ile Ala Ser Ser Gly Pro
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Arg Glu Leu His Asp Leu Val Val Ser Thr Ser Cys Asp Val Ile Gln
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<400> 4

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Lys Arg Ile Gln Ser Glu Val Ile Ser His Lys Asp Ser Thr Thr Ile
        35                  40                  45
Thr Lys Asn Asp Asn Ser Pro Val Thr Thr Gly Asp Tyr Ala Ala Gln
    50                  55                  60
Thr Ile Ile Ile Asn Ala Ile Lys Ser Asn Phe Pro Asp Asp Lys Val
65                  70                  75                  80
Val Gly Glu Glu Ser Ser Ser Gly Leu Ser Asp Ala Phe Val Ser Gly
                85                  90                  95
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Ile Leu Asn Glu Ile Lys Ala Asn Asp Glu Val Tyr Asn Lys Asn Tyr
            100                 105                 110
Lys Lys Asp Asp Phe Leu Phe Thr Asn Asp Gln Phe Pro Leu Lys Ser
        115                 120                 125
Leu Glu Asp Val Arg Gln Ile Ile Asp Phe Gly Asn Tyr Glu Gly Gly
    130                 135                 140
Arg Lys Gly Arg Phe Trp Cys Leu Asp Pro Ile Asp Gly Thr Lys Gly
145                 150                 155                 160
Phe Leu Arg Gly Glu Gln Phe Ala Val Cys Leu Ala Leu Ile Val Asp
                165                 170                 175
Gly Val Val Gln Leu Gly Cys Ile Gly Cys Pro Asn Leu Val Leu Ser
            180                 185                 190
Ser Tyr Gly Ala Gln Asp Leu Lys Gly His Glu Ser Phe Gly Tyr Ile
        195                 200                 205
Phe Arg Ala Val Arg Gly Leu Gly Ala Phe Tyr Ser Pro Ser Ser Asp
    210                 215                 220
Ala Glu Ser Trp Thr Lys Ile His Val Arg His Leu Lys Asp Thr Lys
225                 230                 235                 240
Asp Met Ile Thr Leu Glu Gly Val Glu Lys Gly His Ser Ser His Asp
                245                 250                 255
Glu Gln Thr Ala Ile Lys Asn Lys Leu Asn Ile Ser Lys Ser Leu His
            260                 265                 270
Leu Asp Ser Gln Ala Lys Tyr Cys Leu Leu Ala Leu Gly Leu Ala Asp
        275                 280                 285
Val Tyr Leu Arg Leu Pro Ile Lys Leu Ser Tyr Gln Glu Lys Ile Trp
    290                 295                 300
Asp His Ala Ala Gly Asn Val Ile Val His Glu Ala Gly Gly Ile His
305                 310                 315                 320
Thr Asp Ala Met Glu Asp Val Pro Leu Asp Phe Gly Asn Gly Arg Thr
                325                 330                 335
Leu Ala Thr Lys Gly Val Ile Ala Ser Ser Gly Pro Arg Glu Leu His
            340                 345                 350
Asp Leu Val Val Ser Thr Ser Cys Asp Val Ile Gln Ser Arg Asn Ala
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Lys Gly Glu Leu Glu Gly Leu Pro Ile Pro Asn Pro Leu Leu Arg Thr
    370                 375                 380
Gly His His His His His His His
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tatgctgcac aaacgatcat cataaatgct atcaagagca attttcctga tgataaggta 240
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gaaaagatct gggaccatgc tgcaggcaac gttattgtcc atgaagctgg aggtatccat 960
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<400> 6
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<210> 7
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Tyr Pro Tyr Asp Val Pro Asp Tyr Ala
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<400> 8
Cys Gln Asp Leu Pro Gly Asn Asp Asn Ser Thr
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<400> 10
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<210> 11
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<400> 11
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<210> 12
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<400> 16
Gln Tyr Pro Ala Leu Thr
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<210> 17
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<400> 17
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<210> 18
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<400> 18
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